

Title (en)  
SECOND SCHOTTKY CONTACT METAL LAYER TO IMPROVE GaN SCHOTTKY DIODE PERFORMANCE

Title (de)  
ZWEITE SCHOTTKY-KONTAKT-METALLSCHICHT ZUR ERHÖHUNG DER LEISTUNG EINER GAN-SCHOTTKY-DIODE

Title (fr)  
SECONDE COUCHE DE METAL SUR CONTACT SCHOTTKY DESTINEE A AMELIORER LES PERFORMANCES D UNE DIODE SCHOTTKY AU GaN

Publication  
**EP 1949445 A4 20090819 (EN)**

Application  
**EP 06837446 A 20061113**

Priority  
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• US 58912406 A 20061027

Abstract (en)  
[origin: US2007108547A1] A Schottky contact is disposed atop a surface of a semiconductor. A first Schottky contact metal layer is disposed atop a first portion of the semiconductor surface. A second Schottky contact metal is disposed atop a second portion of the surface layer and adjoins the first Schottky contact metal layer. The first Schottky contact metal layer has a lower work function than the second Schottky contact metal layer.

IPC 8 full level  
**H01L 29/47** (2006.01)

CPC (source: EP US)  
**H01L 21/28581** (2013.01 - EP US); **H01L 29/47** (2013.01 - EP US); **H01L 29/475** (2013.01 - EP US); **H01L 29/66143** (2013.01 - EP US); **H01L 29/7786** (2013.01 - US); **H01L 29/7787** (2013.01 - EP US); **H01L 29/872** (2013.01 - EP US); **H01L 29/2003** (2013.01 - EP US)

Citation (search report)  
• [X] US 2003098462 A1 20030529 - YOSHIDA SEIKOH [JP]  
• [X] JP 2005317843 A 20051110 - FURUKAWA ELECTRIC CO LTD  
• [X] JP 2004186558 A 20040702 - FURUKAWA ELECTRIC CO LTD  
• [PX] EP 1643561 A2 20060405 - FURUKAWA ELECTRIC CO LTD [JP]  
• [X] YOSHIDA S ET AL: "A new GaN based field effect schottky barrier diode with a very low on-voltage operation", POWER SEMICONDUCTOR DEVICES AND ICS, 2004. PROCEEDINGS. ISPSD '04. THE 16TH INTERNATIONAL SYMPOSIUM ON KITAKYUSHU INT. CONF. CTR, JAPAN MAY 24-27, 2004, PISCATAWAY, NJ, USA,IEEE, 24 May 2004 (2004-05-24), pages 323 - 326, XP010723404, ISBN: 978-4-88686-060-6  
• See references of WO 2007059035A2

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DOCDB simple family (publication)  
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